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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,819	10/19/2005	Frank Osterod	2003DE111	3722

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CLARIANT CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
4000 MONROE ROAD
CHARLOTTE, NC 28205

EXAMINER

REDDY, KARUNA P

ART UNIT	PAPER NUMBER
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1713

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/27/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/553,819	Applicant(s) OSTEROD ET AL.	
	Examiner Karuna P. Reddy	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/14/2006</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites "an energy input reduced by at least 20% as compared with the corresponding uncoated pigment". It is not enabling to one skilled in the art on what is meant by "energy input reduction of at least 20%" and in reference to what standards.

Claims 2-11 are rejected based on their dependence on the independent claim 1.

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claim 1-13 is rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Morrison et al (US 2002/0086916 A1).

Morrison et al disclose a surface treatment process that consists of precipitating nitrogen containing polymers in the presence of colorant pigments or of treating colorant pigments with a nitrogen containing polymer and then drying the colorant pigments (paragraph 0015). The colored pigment particles surface treated with nitrogen containing polymers is dispersed in an organosol containing a carrier liquid and reads on claim 1 (paragraph 0016). Examples of this carrier liquid include organic solvents such as aliphatic hydrocarbons

(paragraph 0022). The surface treatment of colorant pigments can be done by common techniques known in the art of surface treatment of particles including solution coating followed by drying, precipitation on pigment surface, milling or kneading the pigment in the presence of a nitrogen containing polymer or copolymer and flush treatment (paragraph 0038). The flush treatment process reads on claim 8 and involves a method wherein an aqueous pigment dispersion is kneaded or otherwise mixed with a resin solution whereby the water which covers each pigment particle is replaced with the resin solution. The flush pigment sample is then dried or used as a dispersion. The resin is a nitrogen containing polymer or copolymer (paragraph 0041). The liquid inks consisting of carrier liquid, organosol and colorant pigment particle may be employed in printing or other ink transfer processes such as ink jet printer and printing (paragraph 0018, 0019). Non-limiting examples of polymerizable organic compounds suitable for use in the organosol include acrylates (paragraph 0032). Other polymers which may be used in conjunction with acrylates include melamin (paragraph 0033) and reads on baking varnish and acrylic-melamin resin of claim 2 and 3. Useful colorants are well known in the art and include materials such as dyes, stains and pigments. Non-limiting examples of typically suitable colorants include phthalocyanin blue, azo red, quinacridone magenta etc. (paragraph 0035). The optimal weight ratio of polymer resin to colorant is on the order of 1/1 to 20/1 and reads on 5% to 50% by weight of the amino containing (meth)acrylate copolymer to organic pigment based on the total weight of coated

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pigment in claim 10 (paragraph 0036). The primary particle size of organosol between 0.05 and 5.0 microns reads on claim 9 (paragraph 0034). The polymer has a weight average molecular weight between 50,000 and 150,000 Daltons and overlaps with the range of molecular weight of nitrogen containing polymer in claim 6 (page 11, claim 15). The copolymer used to coat the colorant pigment should contain atleast 15% on a mole basis of polymerized units in the polymer that contain the nitrogen atom and reads on amine number of between 20 and 70 mg KOH/g of claim 7 based on the listing of a wide variety of amino containing monomers that could be used to form the polymer (paragraph 0037).

The prior art is silent with respect to the reduction in energy input of atleast 20%.

In absence of more information on reduction in energy input of 20% both in the specification and claims, examiner based this rejection on the assumption that reduction of energy input is realized during the incorporation of coated pigment particle into non-aqueous coating material. Therefore, in light of the fact that the prior art teaches / discloses essentially the same process as that of the claimed, one of ordinary skill in the art would have a reasonable basis to believe that process would result in a similar reduction in energy input of 20%. Since the PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish unobviousness difference. See *In re Fitzgerald*, 619 F. 2d. 67,205 USPQ 594(CCPA 1980).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karuna P Reddy
Examiner
Art Unit 1713



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